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10/587,497	07/20/2007	Stanton R. Canter	2184P002US	8330

8791 7590 07/26/2010  
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EXAMINER
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MORAN, EDWARD JOHN

ART UNIT	PAPER NUMBER
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3732

MAIL DATE	DELIVERY MODE
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07/26/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,497	<b>Applicant(s)</b> CANTER, STANTON R.	
	<b>Examiner</b> Edward Moran	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to Applicant's amendment filed 7/2/2010 wherein claims 1, 4, 12 and 15 are amended and claims 1-20 are pending.
2. All objections to the specification and abstract are withdrawn. The amendment to the specification has been entered.

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1–20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 of copending Application No. 11/035266. Although the conflicting claims are not identical, they are not patentably distinct from each other because the conflicting application provides narrower and more specific claims for the same invention, that merely explain

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the invention more clearly than the recited claims. The conflicting claims can easily read on the presented claims in this application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**6. Claims 1, 4, 6-7, 11-12 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Simmons et al (US 5503187).**

7. Regarding claims 1, 4, 6-7, 11-12 and 14-16, Simmons teaches an anchoring element (Figs. 3-17) capable of use in bone and capable of placement in a prepared molar socket that includes interradicular bone, comprising; a first surface (e.g. first means; A, see figure below) having a distal end (B) and a proximal end (C), with at least a portion including a first external thread having a pitch (see A on Figure Below), capable of threadedly engaging an outer wall of a molar socket; an abutment surface (e.g. abutment means; D) disposed at a 90 degree angle to an axis from the proximal end to the distal end of the first surface, and towards the proximal end of the first surface, capable of receiving a dental prosthesis, for example with an adhesive; an annular second surface (e.g. second means; E, bottom of device) disposed toward the distal end of the first surface and joined to the first surface along an outer circumference

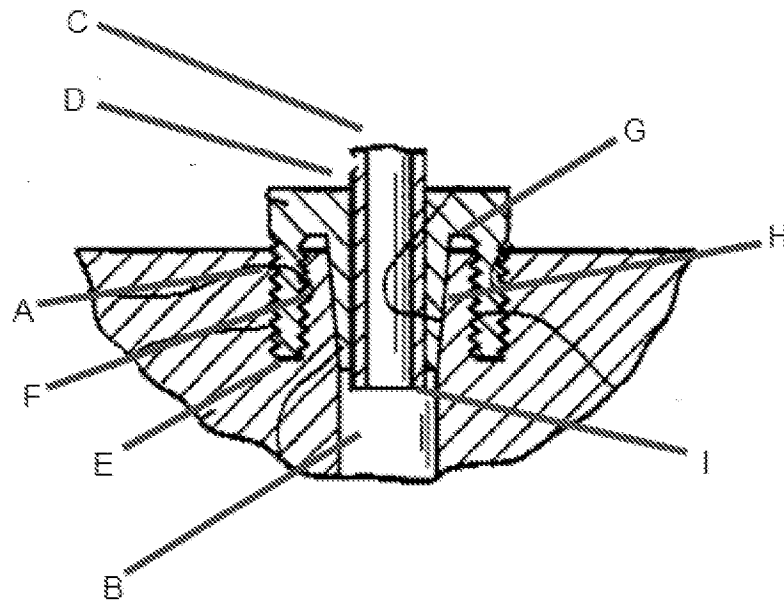
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of the second surface, capable of bearing against a bottom surface of a molar socket; a third surface (e.g. third means; F) concentric with the first surface and joined to the second surface along an inner circumference of the second surface, at least a portion of the third surface including an internal thread having the pitch of the first external thread (e.g. synchronized threads, see column 8, line 55 through column 9, line 15) capable of threadedly engaging a first surface and further compressing an interradicular bone that generally faces the outer wall of a molar socket; and a fourth surface (G) disposed between the distal end and the proximal end of the first surface and joined to the third surface along an outer circumference of the fourth surface (see column 6, line 55 through column 7, line 38). It is noted that the anchoring elements of Simmons could easily be screwed into the jaw bone and are capable of performing the functional or operative language claimed. Further, since the threads of the first and third surfaces are synchronized (e.g. same starting location, pitch, length, width etc), it is inherent that both threads are capable of advancing the anchoring element at the same rate when the anchoring element is rotated to embed it into bone.

8. Simmons further teaches that the fourth surface (G) is annular and the element further comprises a fifth surface (H), capable of bearing against and compressing a side wall of a hole prepared in an interradicular bone, and concentric with the first surface and joined to the fourth surface along an inner circumference of the fourth surface and including a frustrated third conical portion adjacent the distal end such that a smaller circumference of the third conical portion is adjacent the distal end (see Figure Below);

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and a sixth surface (I) disposed toward the distal end of the first surface and joined to the fifth surface along an outer circumference of the sixth surface.



9.

**10. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Niznick (US 5622500).**

11. Regarding claim 20, Niznick teaches a method and an anchoring element (204) comprising a first surface with exterior threads (bottom-left implant of Figure 6), a distal end (bottom portion) and a proximal end (top portion), an abutment surface at the proximal end situated at a perpendicular angle to the longitudinal axis of the implant, an annular second surface on the bottom of the implant since the implant is disclosed as cylindrical (column 3, lines 62-63), a third surface (circumferential wall portion of the inner passage shown at the distal end of implant 204) concentric with the first surface,

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and a fourth surface (top surface of the distal inner passage). Niznick teaches a device that is implanted into the jawbone and, inherently, in order for this device to be implanted, cuts must be made in the area of the jaw in which it is to be inserted.

Generally, when a hole is made the implant is screwed into it, until the bottom of the implant (the second surface) contacts the lower end of the hole. Inherently, in order for the third surface to receive bone, a corresponding cut must be made. Similarly, the hole or cut will have an outer wall that the implant can thread into, in order to secure it in place. In order for the implant to be used, the claimed cuts inherently must be made or else there would be no way for the implant to be inserted into the jawbone. In addition, these cuts will be made in any location, depending on where the implant needs to be placed, including anterior and posterior teeth. It is old and well known in the art that in order to place implants (anywhere in the mouth) corresponding cuts or holes must first be made in the necessary locations. Therefore, the structure of Niznick inherently anticipates the basic method of cutting a hole in the bone and screwing the implant into it.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**14. Claims 8-10 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons et al.**

15. Regarding claims 8-10 and 19, Simmons teaches all the features of the claimed invention, as described above, as explained above (see Fig. 3), and further teaches (Fig. 8) that the fifth surface includes a second external thread (Fig. 8).

16. Simmons does not teach that the thread of the fifth surface matches the thread of the first surface as required. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Figure 7, to include the synchronized threads of Figure 8, as such modification would improve the connection between the anchoring element and the substrate. It is noted that synchronized threads are found between the first and third surface of Figure 7, and the third and fifth surface of Figure 8. It would have been obvious to modify these embodiments and provide synchronized threads on the first, third and fifth portions and it is noted that if the threads were not synchronized, then the anchoring element would not be able to be screwed into the substrate since the threads would start at different



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places and the advance at different rates. Further the fifth surface (fifth means) is capable of threadedly engaging the side wall of a hole in an interradicular bone.

17. Simmons does not teach that the first, second, third and fourth surfaces are on a first part and the fifth and sixth portions are on a second part or that the first, second and third surfaces are on a first part, and the fourth, fifth and sixth surfaces are on a second part; and that the fifth surface is placed adjacent to the fourth surface by passing the second part through the first part as required.

18. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device into two separable pieces, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

**19. Claims 2-3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons et al in view of Niznick.**

20. Regarding claims 2-3 and 13, Simmons teaches all the features of the claimed invention, as explained above, except wherein the first surface includes a frustrated first conical portion and the third surface includes a frustrated second conical portion as required.

21. Niznick, however, teaches that the distal portion of a first surface (outer surface of implant 204) is tapered, having the end with the smaller circumference closer to the distal end, and that the third surface (internal cavity, 3) is tapered so that the end with the larger circumference is adjacent to the distal end (see Figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made

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to modify the device of Simmons to include Niznick's tapered surfaces, as such modification would improve the connection between the anchoring element and the natural shape of a tooth root.

**22. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simmons et al in view of Eibes (US 3866510).**

23. Regarding claim 5, it is noted that Simmons does not teach that internal thread is self-threading.

24. Eibes, however, teaches the use of a self-tapping (threading) thread (see abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Simmons to include Eibes' self tapping thread as such modification would allow the thread to easily cut into the substrate, improving the connection between the anchoring element and substrate. It is noted that even though Eibes teaches the self tapping thread on the outside of the device, one of ordinary skill in the art will appreciate that the teaching a self tapping thread could be applied anywhere to the device, including the inside, outside, projections, upper portion, lower portion, etc.

***Response to Arguments***

25. Applicant's arguments filed 7/2/2010 have been fully considered but they are not persuasive and in addition do not address the new grounds of rejection above, necessitated by Applicant's amendment.

26. Regarding the obvious type double patenting rejection, Applicant argues that a provisional rejection should not be made. However, the examiner disagrees as the

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other application (11/035,266) is very far into prosecution and still substantially claims the same invention as this application. Further a Terminal Disclaimer has been filed in that case, regarding this application, and in order avoid any other double patenting issues in the future, the examiner suggests filing a terminal disclaimer in this application with regard to the other application.

27. Applicant argues that Niznick does not teach the method of claim 20, however the examiner disagrees. It is old and well known in the art that in order to place a dental implant, cuts or holes must be made in the jawbone to a) match the dimensions and structure of the implant to be used, and b) place the dental implant in the correct orientation and location for the desired treatment. For example, if a molar tooth is missing, the dentist will prepare the desired cavity to the size and shape of the desired implant to be used. Implants come in many shapes and sizes and this step is completely dependent on the implant to be used. Since the implant of Niznick contains all the structural features in the claim, it is inherent that the cavity will be prepared in the same manner as claimed. Further, in Applicant's specification, there is no reference to the term "cutting", only "preparing" and in addition, there is no reference to the claimed specific cuts made as well. Using the same basic argument as applied to Niznick above, the examiner did not make an objection/rejection to this claim; e.g. it is inherent that the socket will be cut/prepared/drilled in such a manner so as to allow the structure of the implant to be used to closely fit into the jawbone and provide a secure connection between the implant and the jawbone.

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28. The rejections under Lazarof have been withdrawn in view of Applicant's amendment.

29. Applicant argues that it would not have been obvious to provide self tapping threads on the internal threads of Eibes. However, the examiner disagrees. Eibes is used in the rejection only to teach the use of self tapping threads. The specific location of the self tapping threads would be a variable decided upon by the designer and dependent upon the task at hand. The examiner only uses Eibes to teach that self tapping threads can be used, whether on the inside of the implant, outside, top, bottom, etc. Further, self tapping threads are old well known and it would be obvious to place them on any section of a screw that needs to cut into the substrate. A rearrangement of parts, or changing the location of a part, has been held to only involve routine skill in the art.

### ***Conclusion***

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see attached PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Moran whose telephone number is (571)270-5349. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571)272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. M./  
Examiner, Art Unit 3732  
7/21/2010

/Cris L. Rodriguez/  
Supervisory Patent Examiner, Art Unit 3732